

FIGURE 2

Enterprise System Field Information:

```
1  public class Site {  
2      public static final int MAXBUILDINGS = 2;  
3      public static final int MAXMEETINGROOMS = 12;  
4      public static final int MAXDEPARTMENTS = 50;  
5      public static final int MAXEMPLOYEES = 1000;  
6      private Building buildings[] =  
7          new Building[MAXBUILDINGS];  
8  }  
9  
10 public class Building {  
11     private MeetingRoom meetingRooms[] =  
12         new MeetingRoom[Site.MAXMEETINGROOMS];  
13     private Department departments[] =  
14         new Department[Site.MAXDEPARTMENTS];  
15 }  
16  
17 public class MeetingRoom {  
18     private int size;  
19     private int location;  
20 }  
21  
22 public class Department {  
23     private int deptNumber;  
24     private String deptName;  
25     private Employee employees[] =  
26         new Employee[Site.MAXEMPLOYEES];  
27 }  
28  
29 public class Employee {  
30     private int empNumber;  
31     private String empName;  
32 }
```

FIGURE 3A

Legacy System Field Information:

```
1  :
2  private Bldg legacyBldgs[] =
3    new Bldg[Constants.MAXLEGACYBLDGS];
4  :
5
6  public class Constants{
7      public static final int MAXLEGACYBLDGS = 2;
8      public static final int MAXLEGACYROOMS = 4;
9      public static final int MAXLEGACYDEPTS = 50;
10     public static final int MAXLEGACYEMPLS = 1000;
11 }
12
13 public class Bldg {
14     private Room legacyRooms[] =
15         new Room[Constants.MAXLEGACYROOMS];
16     private Dept legacyDepts[] =
17         new Dept[Constants.MAXLEGACYDEPTS];
18 }
19
20 public class Room {
21     private String legacyLocn;
22     private int legacySize;
23 }
24
25 public class Dept {
26     private String legacyDeptName;
27     private int legacyDeptNum;
28     private Empl legacyEmpls[] =
29         new Empl[Constants.MAXLEGACYEMPLS];
30 }
31
32 public class Empl {
33     private String legacyName;
34     private int legacyNumber;
35 }
```

FIGURE 3B

FIGURE 4

400




400a Enterprise System Field	400b Connection Directionality	400c Legacy System Field
410 Site.buildings []. meetingRooms []. location		legacyBldgs []. legacyRooms []. legacyLocn
420 Site.buildings []. meetingRooms []. size		legacyBldgs []. legacyRooms []. legacySize
430 Site.buildings []. departments []. employees []. emp Number		legacyBldgs []. legacyDepts []. legacyEmps []. legacyNumber

FIGURE 5A

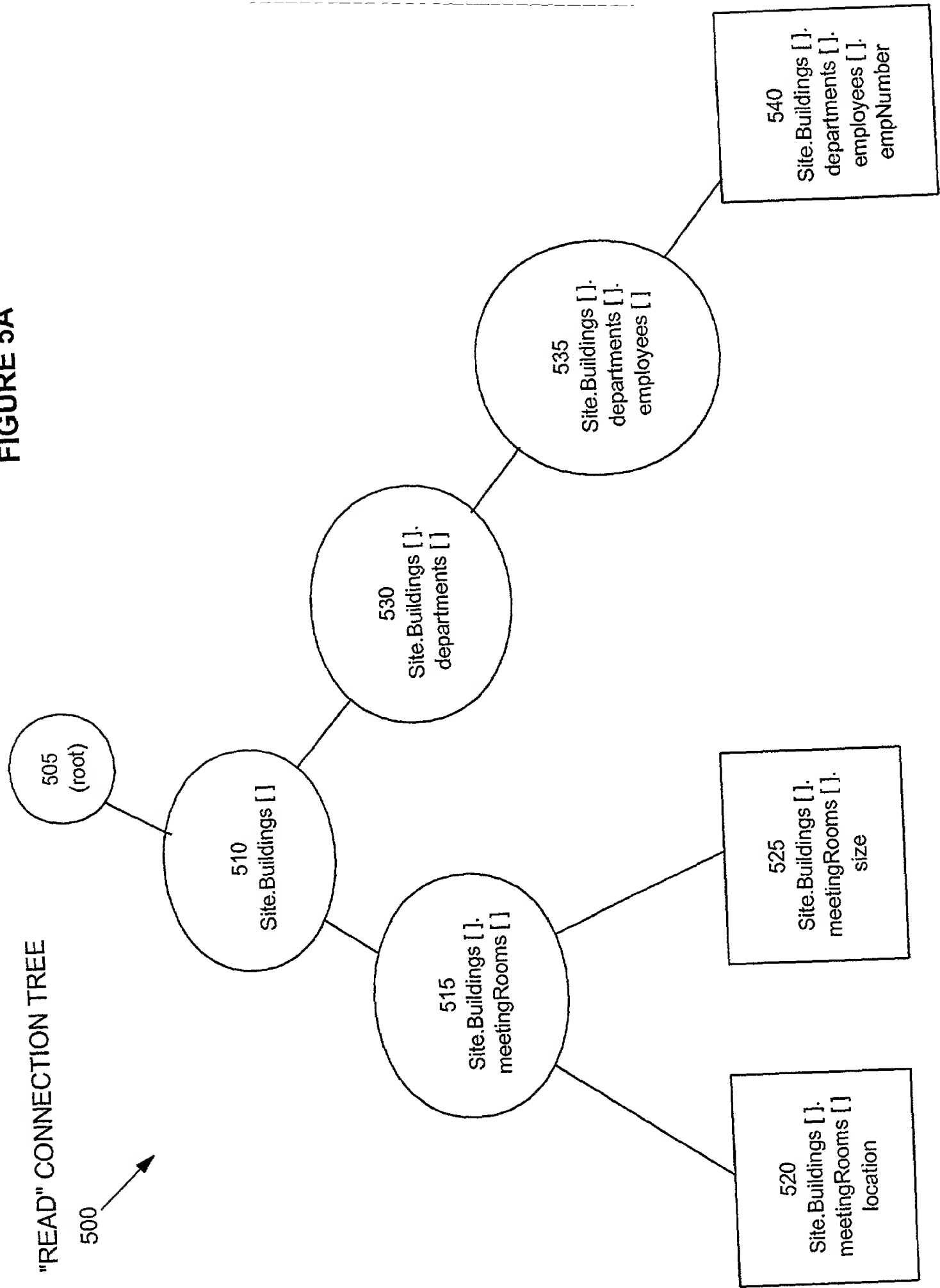
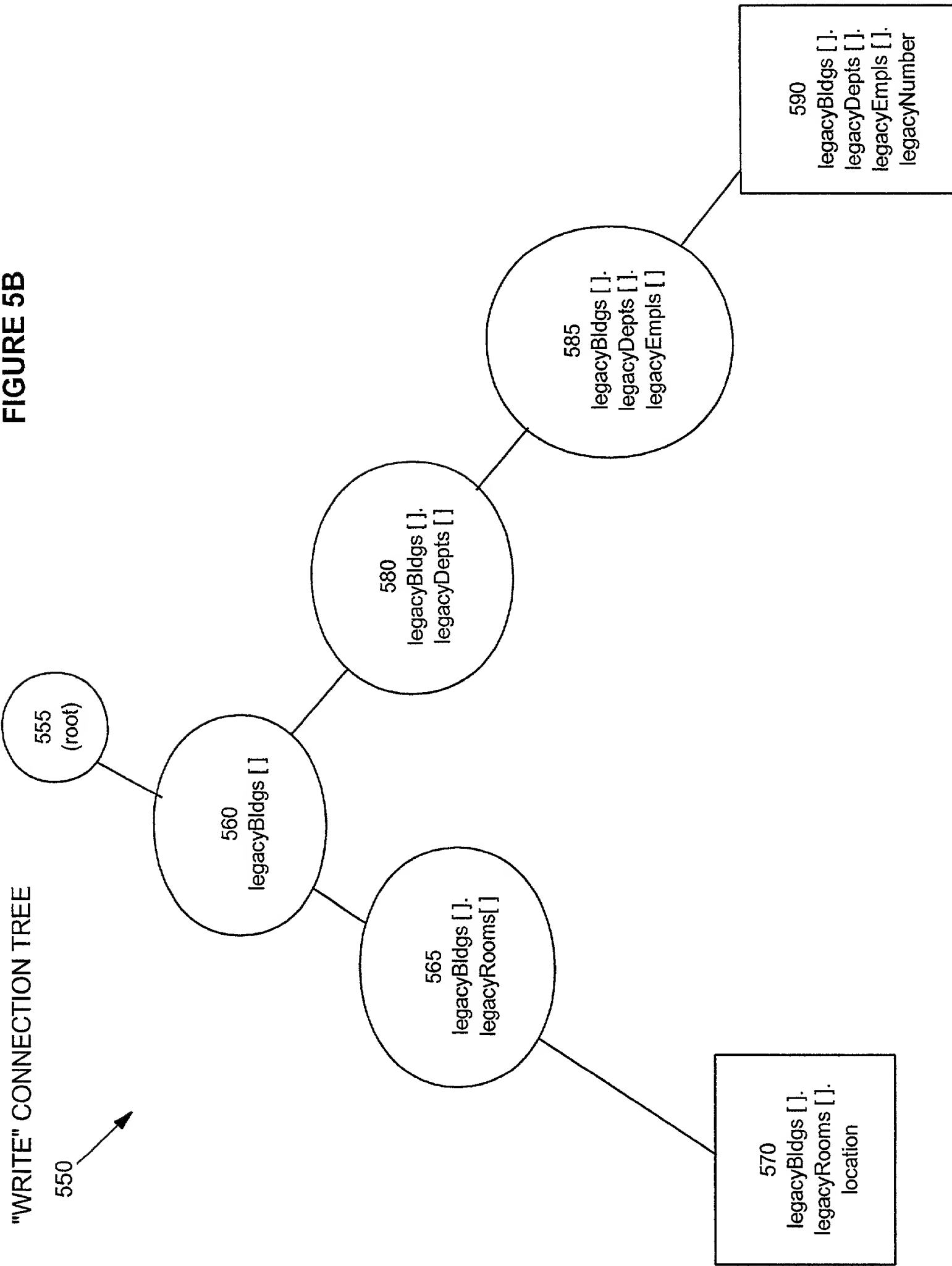


FIGURE 5B



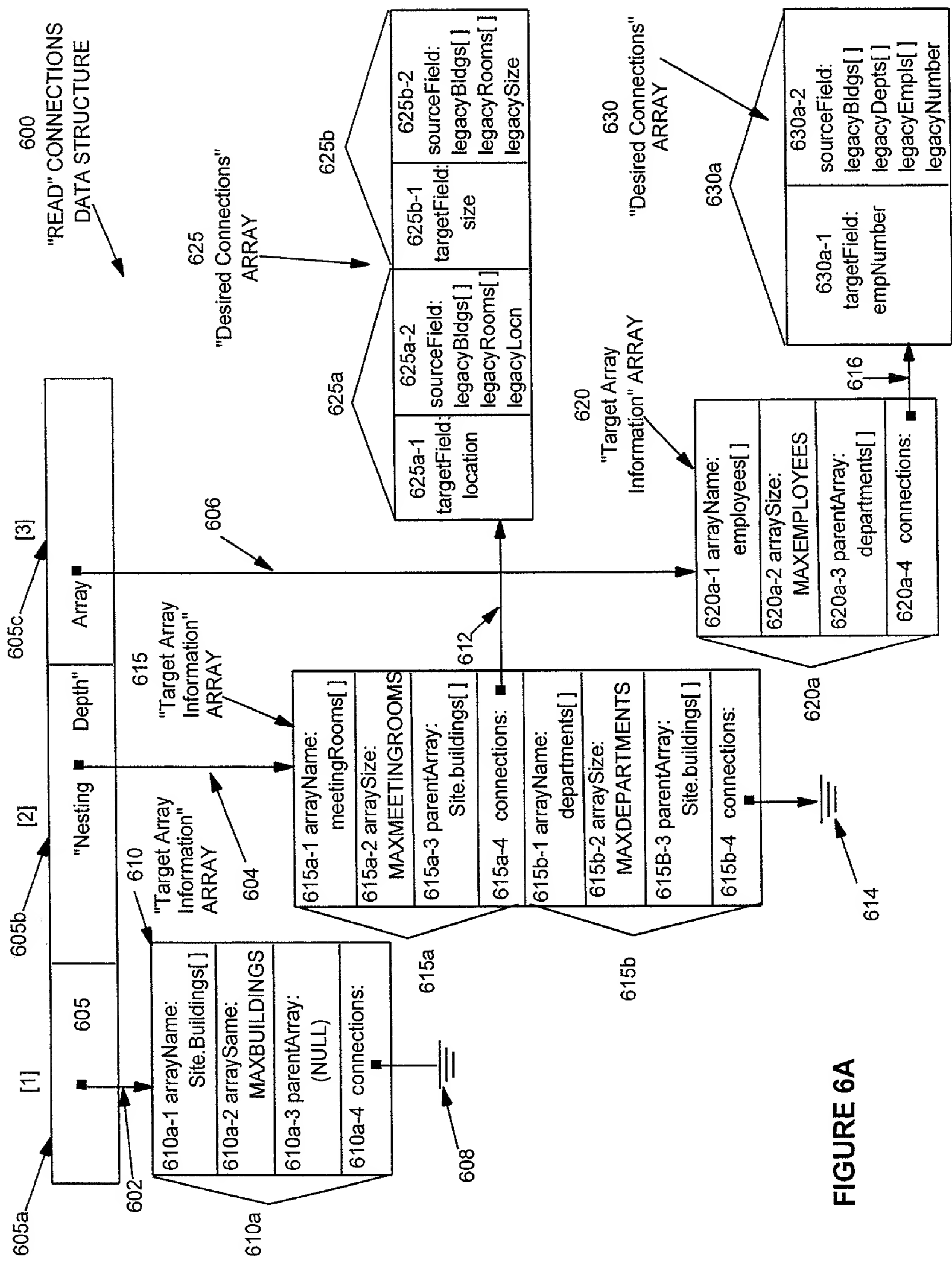


FIGURE 6A

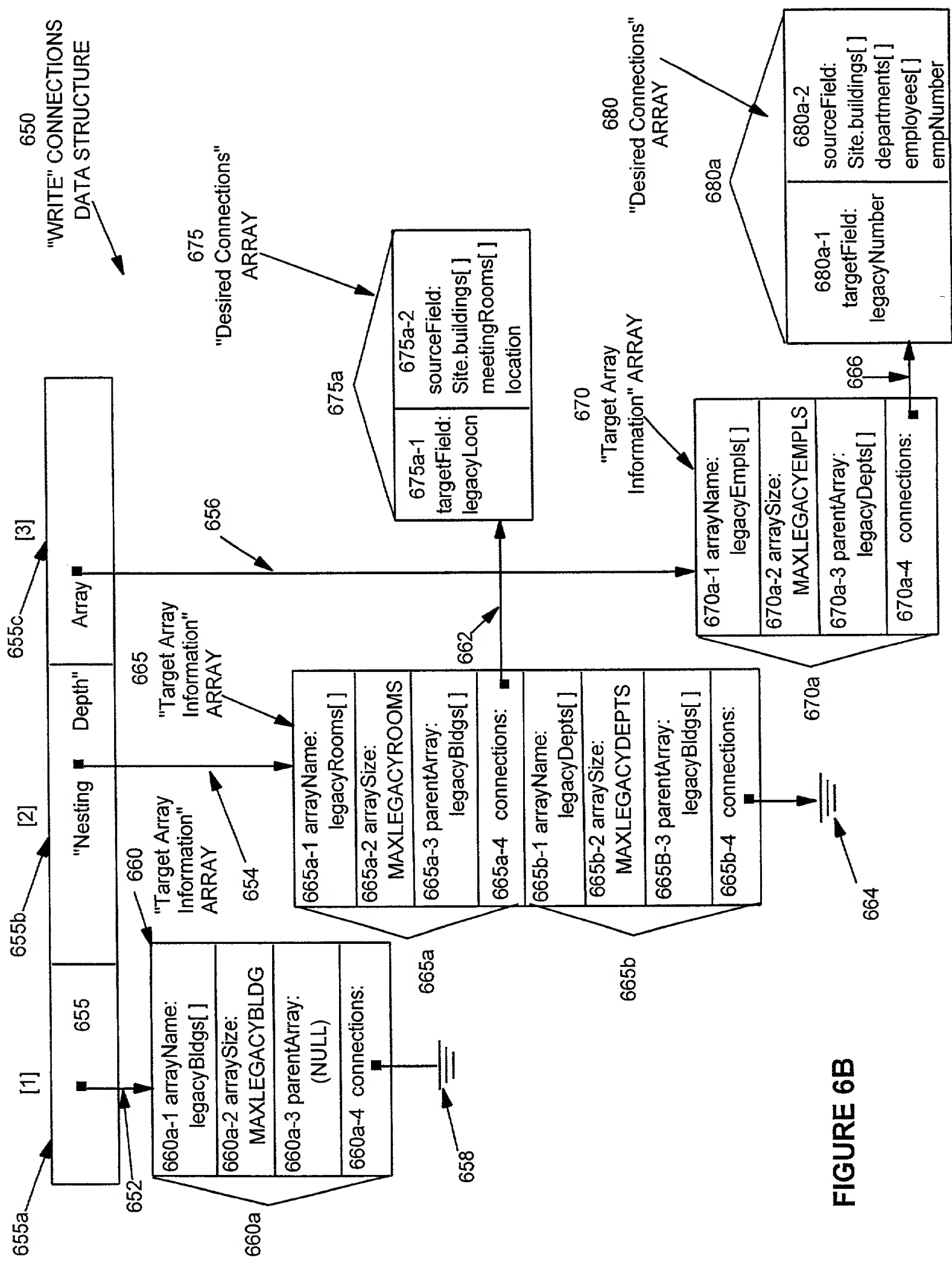


FIGURE 6B

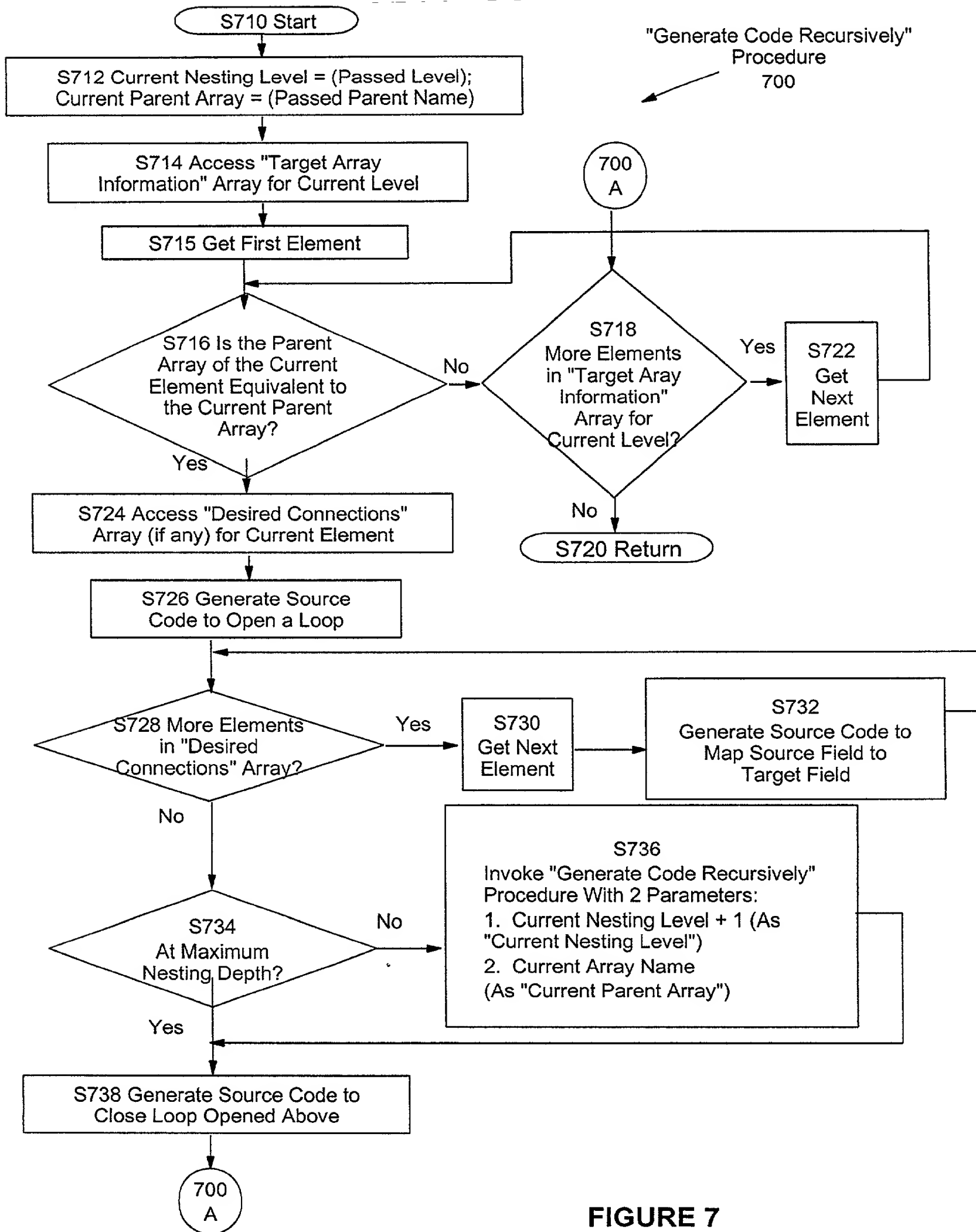


FIGURE 7

Generated "Read" Mapping Code:

```
1  for (i=0;i< MaxBldgs; i++)
2  {
3    for (j=0;j<MaxRooms;j++)
4    {
5      Site.buildings[i].meetingRooms[j].location =
6      APIgetLegacyData(legacyBldgs[i].legacyRooms[j].legacyLocn);
7
8      Site.buildings[i].meetingRooms[j].size =
9      APIgetLegacyData(legacyBldgs[i].legacyRooms[j].legacySize);
10 }
11 for (j=0; j< MaxDepts;j++)
12 {
13   for (k=0; k< MaxEmpls;k++)
14   {
15     Site.buildings[i].departments[j].employee[k].empNumber =
16     APIgetLegacyData(legacyBldgs[i].legacyDepts[j].
17     legacyEmpls[k].legacyNumber);
18   }
19 }
20 }
```

FIGURE 8A

Generated "Write" Mapping Code:

```
1  for (i=0;i< MaxLegacyBldgs; i++)
2  {
3    for (j=0;j<MaxLegacyRooms;j++)
4    {
5      APIsetLegacyData(legacyBldgs[i].legacyRooms[j].legacyLocn,
6        Site.buildings[i].meetingRooms[j].location);=
7    }
8    for (j=0; j< MaxLegacyDepts; j++)
9    {
10     for (k=0; k< MaxLegacyEmpls; K++)
11     {
12       APIsetLegacyData(
13         legacyBldgs[i].legacyDepts[j].legacyEmpls[k].legacyNumber,
14         Site.buildings[i].departments[j].employee[k].empNumber;
15     }
16   }
17 }
```

FIGURE 8B